



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,796	07/23/2003	Tadashi Inoue	01206CD/HG	9019
1933	7590	05/13/2005	EXAMINER	
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC			YEE, DEBORAH	
767 THIRD AVENUE			ART UNIT	
25TH FLOOR			PAPER NUMBER	
NEW YORK, NY 10017-2023			1742	

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/625,796

Applicant(s)

TADASHI INOUE ET AL

Examiner

Deborah Yee

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17 to 40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17 to 40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 25 is objected to because of the following informalities: There is a typographical error because "0.05% or less S" should be -0.005% or less S--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 25 to 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent (JP) 403236444, JP358071330, JP 361034159 , JP 407018383 or JP 404325657.
4. The English abstract of each JP teaches an analogous steel sheet processed in substantially the same manner as claimed by applicants comprising the steps of hot rolling, cooling and coiling at temperature and cooling rate ranges that overlap those recited by the claims. Moreover, English abstract of JP prior art disclose a steel sheet having a composition with constituents whose wt% ranges overlap those recited by the claims. Note that the overlap in limitations establishes a prima facie case of obviousness because it would be obvious to one of ordinary skill in the art to select the claimed ranges from the broader

Art Unit: 1742

disclosure of the prior art since the prior art has similar utility and properties, see MPEP 2144.05.

5. Moreover JP'444 and JP'657 disclose 0.0005 to 0.005%Ca and 0.001 to 0.01%Ca respectively which are within the 0.005% or less Ca recited by claim 26.

6. Even though prior art does not teach the reduction in thickness at the final stand during hot rolling at 8 to 30% as recited by claims 27 and 28, such would not be a patentable difference since it would be a matter of choice well within the skill of the artisan and productive of no new and unexpected results.

7. The English abstract of JP'444 discloses cooling after hot rolling within 0.5 seconds which is within applicant's range of >0.1 to <1.0 seconds recited by claims 29 to 32. Moreover, the other JP references teach cooling directly or immediately after hot rolling and hence would be expected to be within applicant's time range of >0.1 to <1.0 seconds.

8. The English abstract of JP'159 discloses cold rolling and annealing after coiling which meets claims 33 to 40. Even though the other JP references do not teach cold rolling and annealing after coiling as recited by claims 33 to 40, such would be well within the skill of the artisan to incorporate since cold rolling and annealing are conventional techniques well known in the metallurgical art to further enhance steel properties.

9. Claims 17 to 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ushioda et al (US Patent 5,486,241) for the reasons set forth in the office action dated 12-09-04.

Response to Arguments

10. Applicant's arguments filed 3-09-2005 with regard to claims 17 to 24 have been fully considered but they are not persuasive. It was argued that the present invention steel contains 0.01 to 0.3% C whereas the Ushioda steel contains 0.0001 to 0.0015%C. Applicant submitted that 0.01% or more C is absolutely necessary to obtain the strength of 440Mpa or more. It is the examiner's position that Ushioda steel also teaches similar high strength, see example B5 in Table 12 of columns 15-16 exhibiting a tensile strength of 47kg/mm² (equivalent to 460.93Mpa). Moreover it is well known in the metallurgical art that C in steel increases strength and hardness (see Introduction to Steels and Cast Iron, Table 1.1), and Ushioda on lines 24 to 34 of column 6 only limits C to lower levels in order to provide anti-aging and reduce embrittlement. In any event, the difference in carbon content produces a predictable result and hence would not patentably distinguish claimed method over prior art. Note that it has been held that a method is not rendered patentably new by the use of a somewhat different but analogous steel, especially if the method simply employs a usual type of starting material in a conventional method to yield a predictable result.

11. Applicant's arguments filed 3-09-2005 with regard to claims 25 to 40 are deemed persuasive and 103 rejection has been withdrawn.

12. Applicant's terminal disclaimer submitted 3-09-2005 overcomes obvious-type double patenting rejection over US Patent 6,632,295.

Art Unit: 1742

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

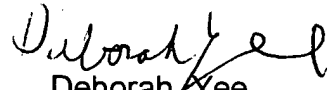
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on Monday-Friday from 6:00 to 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Deborah Yee
Primary Examiner
Art Unit 1742

dy